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# **Software Requirements Specification**

**for**

# **Spa Salon Management System**

**Version 1.0 approved**

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**SE1410**

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## Revision History

Name	Date	Reason For Changes	Version

# 1. Introduction

## 1.1 Purpose

This SRS describes the functional and nonfunctional requirements for software release 1.0 of the Spa Salon Management System (SSMS). This document is intended to be used by the members of the project team who will implement and verify the correct functioning of the system. Unless otherwise noted, all requirements specified here are committed for release 1.0.

## 1.2 Document Conventions

N/A

## 1.3 Project Scope

Feature	Release 1	Release 2	Release 3
FE-1, Order and pay for services from the spa salon's catalog	Customers can only choose services that have in the catalog, only pay directly when customers come to the spa salons	Accept credit and debit card payments	Accept additional requirements from customers about salon services if it is possible (through note)
FE-2, Order and pay for products from spa salon to be delivered	Customers can only pay directly for products when customers come to the spa salons	Accept credit and debit card payments	
FE-3, Create, view, modify, and delete services	Fully implemented		
FE-4, Create, view, modify, and delete services	Fully implemented		
FE-5, Create, view, modify, and delete services	Fully implemented		
FE-6, System access	Internet access	Desktop App for admin	iOS and Android phone and tablet apps for staffs and customers
FE-7, Membership subscription for customers	Not implemented	Membership subscription for customers (no promotion)	Fully implemented and applied promotions

## 1.4 References

1. Class Design slide – IBM

## 2. Overall Description

### 2.1 Product Perspective

#### 2.1.1 Background

Nowadays, people find that beauty and relaxing services are more interesting which leads to more and more people come to spa salons to relax and to beautify themselves. As a result, many people may have to wait for a long time to enjoy the services if the spa salons have too many customers at the same time. Coming to the spa's location to book the services schedule is an inconvenient way that is time-consuming and unworthy for customers. In the spa manager's view, the loss of customers because of those reasons can negatively affect their revenue and reputation.

#### 2.1.2 Business Opportunity

Many spa owners demand a system that could help customers to see the schedule of the services of spa salons so that they can book their service turns at the salons at a specific time and date. Such a system can help customers to save their time and effort. Moreover, the list of services of spa salons can be shown to customers in detail so that they can easily select the services that are suitable for them each time they want to book their desired services at the salon. From the salon staff's view, the systems can help them to acknowledge their schedule. Staff can acquire information on what kind of services they will do and who they will provide services for. The future ability for customers who want to book schedule at spa salons would in-app purchasing service and provide the possibility of convenience when the system is promised to cooperate with many online banking companies.

#### 2.1.3 Business Objectives

BO-01: Reduce 15% spa operating cost

BO-02: The app will be used by 6% spa salons and 50,000 spa customers in the city after 3 months initial release.

BO-03: The app will be used by 18% spa salons and 110,000 spa customers in the city after 6 months initial release.

BO-04: The app will be used by 25% spa salons and 200,000 spa customers in the city after 1-year initial release.

#### 2.1.4 Vision Statement

For customers who want to enjoy the spa's services without waiting for so long before this app was deployed, the SSMS is an Internet-based and smartphone-enabled application that will help customers to book spa services, process payments, purchase spa's products online, and read news and trending beauty articles. Unlike scheduling by phone and coming to the spa location, the customer who uses the SSMS can actively get a suitable time and staff who will do the services for the customer, which will help them to save a large amount of time and effort.

For spa managers who want to easily manage spa services, staff and spa's beauty products and see revenue reports, using the SSMS is one of the most convenient ways to implement the former demands. Unlike the paper way, with SSMS the system is real-time based which means the information is always up-to-date and the data is transparent to the managers

### 2.1.5 Business Risks

RI-01: Too few spa salons and customers might use this system, affect the revenue and the investment of the system (Probability = 0.35; Impact = 9)

RI-02: The latency of the services provided to customers (Probability = 0.2; Impact = 4)

RI-03: The competition with other system providers (Probability = 0.3; Impact = 3)

## 2.2 User Classes and Characteristics

Spa customer	A spa customer is the one who will order products, services, and get membership from the SSMS. Spa customers are expected to use the SSMS an average of 3 times per week each. An estimated 80 percent of orders will be placed from home or by mobile app, while the remaining 20 percent will be placed from the website or physical.
Staff	The Spa System employs about 20 Spa Staffs who will receive a schedule to do services from the SSMS, do services for the customer. Most of the Spa Staffs will need training in the use of hardware and software for the SSMS.
Spa Manager	The Spa Manager is a spa employee who will manage all the posts, staffs, products, and articles for the spa system.

## 2.3 Operating Environment

OE-1: The SSMS shall operate correctly with the following web browsers: Firefox, Google Chrome, Opera, Safari.

OE-2: The SSMS shall operate on a server running the current corporate-approved versions of Ubuntu and Apache HTTP Server.

OE-3: The SSMS shall permit users to access via Android, iOS, and Windows smartphones and tablets.

## 2.4 Design and Implementation Constraints

CO-1: The system shall use the current corporate standard Microsoft SQL Server database engine.

CO-2: All HTML code shall conform to the HTML 5.0 standard.

CO-3: The programming language using in SSMS is Java.

CO-4: The framework using in SSMS is Spring Boot.

## 2.5 Assumptions and Dependencies

AS-1: System will work well when the spa's staffs and beauty products are always available.

AS-2: The customers always arrive at the salons on time.

## 3. System Features

### 3.1 System Feature 1

FE-1: Order and pay for services from the spa salon's catalog.

FE-2: Order and pay for products from the spa salon to be delivered.

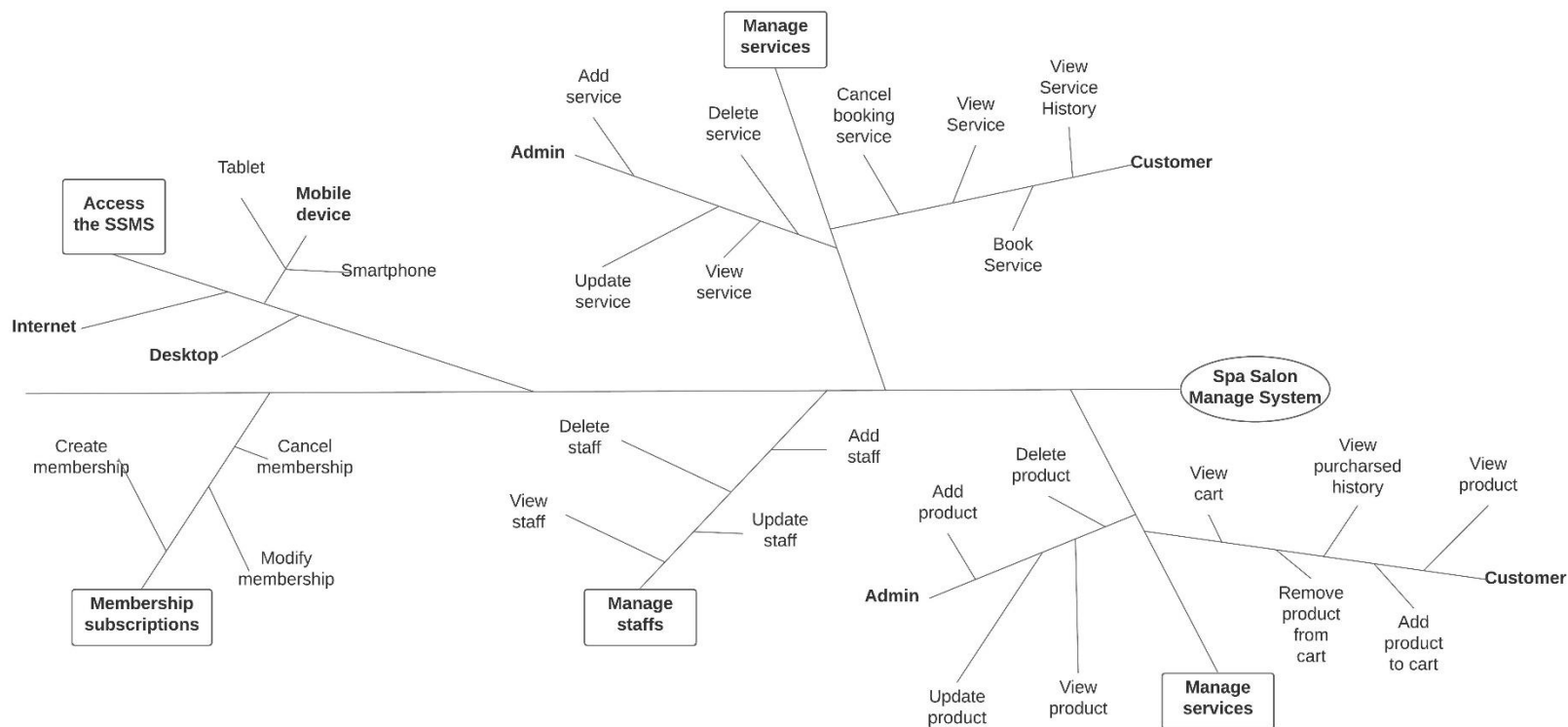
FE-3: Create, view, modify, and delete services for admin.

FE-4: Create, view, modify, and delete products for admin.

FE-5: Create, view, modify and delete staffs for admin.

FE-6: Provide system access through corporate mobile devices for customers, staffs and desktop app for admin.

FE-7: Membership subscription for customers



### 3.2 System Feature 2



UC ID and Name:	UC-1 Add Article Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Spa Manager	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks the “Post Article” button		
Description:	User can post articles into the system for spa customer to read		
Preconditions:	PRE-1: User is logged into the SSMS* as a Spa Manager		
Postconditions:	POST-1: The Articles posted will be stored in SSMS* with the status “active”		
Normal Flow:	<ol style="list-style-type: none"> <li>1. System displays a form to post an article for manager</li> <li>2. Manager inputs all fields</li> <li>3. Manager clicks “Post Article” button</li> <li>4. System stores the articles that contain all the parameters managers provided before</li> <li>5. System shows “success” notifications</li> </ol>		
Alternative Flows:	<b>1.1 Manager inputs wrong format of the articles</b> <ol style="list-style-type: none"> <li>1. System shows the corresponding message of the incorrect fields in step 2 of normal flow</li> <li>2. Return to step 1 of normal flow</li> </ol>		
Exceptions:	<b>1.0 E1 Server crash or session time-out</b> <ol style="list-style-type: none"> <li>1. The system will connect in a few seconds and redirect to the login screen</li> </ol>		
Priority:	Low		
Frequency of Use:	Approximately 2 -3 times a month, only when managers want to provide a promotion or share some information through articles		
Business Rules:	BR-7		
Other Information:	N/A		
Assumptions:	Assume that the database connection when adding has no exception		

UC ID and Name:	UC-2 Update Article Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Spa Manager	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks the “Edit Article” button		
Description:	User can update articles of the system for spa customer to read		
Preconditions:	PRE-1: User is logged into the SSMS* as a Spa Manager PRE-2: User is in the detail page of the desired article to update		
Postconditions:	POST-1: The Articles updated will be stored in SSMS* with new “last update time” and “update person”		
Normal Flow:	<ol style="list-style-type: none"> <li>1. System displays a form to update article for manager</li> <li>2. Manager inputs all fields</li> <li>3. Manager clicks “Update Article” button</li> <li>4. System updates the articles that contain all the parameters managers provided before</li> <li>5. System shows “success” notifications</li> </ol>		
Alternative Flows:	<b>2.1 Manager inputs wrong format of the articles</b> <ol style="list-style-type: none"> <li>1. System shows the corresponding message of the incorrect fields in step 2 of normal flow</li> </ol>		



	2. Return to step 1 of normal flow
Exceptions:	<b>1.0 E1 Server crash or session time-out</b> 1. The system will connect in a few seconds and redirect to the login screen
Priority:	Low
Frequency of Use:	Rarely use, only if spa manager wants to update article because some spelling mistakes
Business Rules:	BR-7
Other Information:	N/A
Assumptions:	Assume that the database connection when updating has no exception

UC ID and Name:	UC-3 Delete Article Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Spa Manager	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks the “Delete Article” button		
Description:	User can “delete” articles of the system		
Preconditions:	PRE-1: User is logged into the SSMS* as a Spa Manager PRE-2: User is on the detail page of the desired article to delete		
Postconditions:	POST-1: The Articles deleted will be updated in SSMS* with new “last update time”, “update person” and status “deleted”		
Normal Flow:	1. System displays a form “Are you sure?” to confirm 2. Manager clicks “Yes” 3. System updates the status “deleted” of the desired article 4. System shows “success” notifications 5. System redirects the user to the showing list of articles page		
Alternative Flows:	<b>3.1 Manager clicks “No” in step 2 of normal flow</b> 1. System redirects the user to the detail page of the desired article		
Exceptions:	<b>1.0 E1 Server crash or session time-out</b> 1. The system will connect in a few seconds and redirect to the login screen		
Priority:	Low		
Frequency of Use:	2 – 3 times a month, only if the spa manager wants to disable some old articles		
Business Rules:	BR-7		
Other Information:	N/A		
Assumptions:	Assume that the database connection when deleting has no exception		

UC ID and Name:	UC-4 Add Service Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Spa Manager	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks the “Add Service” button		
Description:	User can add services into the system for spa customer to book		

Preconditions:	PRE-1: User is logged into the SSMS* as a Spa Manager
Postconditions:	POST-1: The Service posted will be stored in SSMS* with the status “available”
Normal Flow:	<ol style="list-style-type: none"> <li>1. System displays a form to add service for manager</li> <li>2. Manager inputs all fields</li> <li>3. Manager clicks “Add Service” button</li> <li>4. System stores the service that contains all the parameters managers provided before</li> <li>5. System shows “success” notifications</li> </ol>
Alternative Flows:	<b>4.1 Manager inputs wrong format of the services</b> <ol style="list-style-type: none"> <li>1. System shows the correspond message of the incorrect fields in step 2 of normal flow</li> <li>2. Return to step 1 of normal flow</li> </ol>
Exceptions:	<b>2.0 E1 Server crash or session time-out</b> <ol style="list-style-type: none"> <li>1. The system will connect in a few seconds and redirect to the login screen</li> </ol>
Priority:	Low
Frequency of Use:	Sometimes, when manager team comes up with new services
Business Rules:	BR-6
Other Information:	N/A
Assumptions:	Assume that the database connection when adding has no exception

UC ID and Name:	UC-5 Update Service Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Spa Manager	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks “Edit Service” button		
Description:	User can update services of the system for spa customer to read		
Preconditions:	PRE-1: User is logged into the SSMS* as a Spa Manager PRE-2: User is in the detail page of the desire service to update		
Postconditions:	POST-1: The Services updated will be stored in SSMS* with new “last update time” and “update person”		
Normal Flow:	<ol style="list-style-type: none"> <li>1. System displays a form to update service for manager</li> <li>2. Manager inputs all fields</li> <li>3. Manager clicks “Update Service” button</li> <li>4. System updates the services that contains all the parameters managers provided before</li> <li>5. System shows “success” notifications</li> </ol>		
Alternative Flows:	<b>5.1 Manager inputs wrong format of the service</b> <ol style="list-style-type: none"> <li>1. System shows the correspond message of the incorrect fields in step 2 of normal flow</li> <li>2. Return to step 1 of normal flow</li> </ol>		
Exceptions:	<b>3.0 E1 Server crash or session time-out</b> <ol style="list-style-type: none"> <li>1. The system will connect in a few seconds and redirect to the login screen</li> </ol>		
Priority:	Low		

Frequency of Use:	Rarely use, only if spa manager wants to update services to set the price, the status, ...
Business Rules:	BR-6
Other Information:	N/A
Assumptions:	Assume that the database connection when updating has no exception

UC ID and Name:	UC-6 Delete Service Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Spa Manager	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks “Delete Service” button		
Description:	User can “delete” service of the system		
Preconditions:	PRE-1: User is logged into the SSMS* as a Spa Manager PRE-2: User is in the detail page of the desire service to delete		
Postconditions:	POST-1: The Services deleted will be updated in SSMS* with new “last update time”, “update person” and status “deleted”		
Normal Flow:	<ol style="list-style-type: none"> <li>1. System displays a form “Are you sure?” to confirm</li> <li>2. Manager clicks “Yes”</li> <li>3. System updates the status “deleted” of the desire service</li> <li>4. System shows “success” notifications</li> <li>5. System redirects user to the showing list of services page</li> </ol>		
Alternative Flows:	<b>6.1 Manager clicks “No” in step 2 of normal flow</b> <ol style="list-style-type: none"> <li>1. System redirects user to the detail page of the desire service</li> </ol>		
Exceptions:	<b>4.0 E1 Server crash or session time-out</b> <ol style="list-style-type: none"> <li>1. The system will connect in a few seconds and redirect to the login screen</li> </ol>		
Priority:	Low		
Frequency of Use:	Super-rarely use, only if spa manager wants to disable some old services or stops providing some services		
Business Rules:	BR-6		
Other Information:	N/A		
Assumptions:	Assume that the database connection when deleting has no exception		

UC ID and Name:	UC-7 Add Product Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Spa Manager	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks “Add Product” button		
Description:	User can add products into the system for spa customer to buy		
Preconditions:	PRE-1: User is logged into the SSMS* as a Spa Manager		
Postconditions:	POST-1: The Product posted will be stored in SSMS* with the status “available”		
Normal Flow:	<ol style="list-style-type: none"> <li>1. System displays a form to add product for manager</li> </ol>		

	2. Manager inputs all fields 3. Manager clicks “Add Product” button 4. System stores the product that contains all the parameters managers provided before 5. System shows “success” notifications
Alternative Flows:	<b>7.1 Manager inputs wrong format of the products</b> 1. System shows the correspond message of the incorrect fields in step 2 of normal flow 2. Return to step 1 of normal flow
Exceptions:	<b>5.0 E1 Server crash or session time-out</b> 1. The system will connect in a few seconds and redirect to the login screen
Priority:	Low
Frequency of Use:	Sometimes, when manager team comes up with new products
Business Rules:	BR-9
Other Information:	N/A
Assumptions:	Assume that the database connection when adding has no exception

UC ID and Name:	UC-8 Update Product Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Spa Manager	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks “Edit Product” button		
Description:	User can update products of the system for spa customer to read		
Preconditions:	PRE-1: User is logged into the SSMS* as a Spa Manager PRE-2: User is in the detail page of the desire product to update		
Postconditions:	POST-1: The Products updated will be stored in SSMS* with new “last update time” and “update person”		
Normal Flow:	1. System displays a form to update product for manager 2. Manager inputs all fields 3. Manager clicks “Update Product” button 4. System updates the products that contains all the parameters managers provided before 5. System shows “success” notifications		
Alternative Flows:	<b>8.1 Manager inputs wrong format of the success</b> 1. System shows the correspond message of the incorrect fields in step 2 of normal flow 2. Return to step 1 of normal flow		
Exceptions:	<b>6.0 E1 Server crash or session time-out</b> 1. The system will connect in a few seconds and redirect to the login screen		
Priority:	Low		
Frequency of Use:	Rarely use, only if spa manager wants to update products to set the price, the status, ...		
Business Rules:	BR-9		

Other Information:	N/A
Assumptions:	Assume that the database connection when updating has no exception

UC ID and Name:	UC-9 Delete Product Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Spa Manager	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks “Delete Product” button		
Description:	User can “delete” product of the system		
Preconditions:	PRE-1: User is logged into the SSMS* as a Spa Manager PRE-2: User is in the detail page of the desire product to delete		
Postconditions:	POST-1: The Products deleted will be updated in SSMS* with new “last update time”, “update person” and status “deleted”		
Normal Flow:	<ol style="list-style-type: none"> <li>1. System displays a form “Are you sure?” to confirm</li> <li>2. Manager clicks “Yes”</li> <li>3. System updates the status “deleted” of the desire product</li> <li>4. System shows “success” notifications</li> <li>5. System redirects user to the showing list of products page</li> </ol>		
Alternative Flows:	<b>9.1 Manager clicks “No” in step 2 of normal flow</b> <ol style="list-style-type: none"> <li>1. System redirects user to the detail page of the desire service</li> </ol>		
Exceptions:	<b>9.0 E1 Server crash or session time-out</b> <ol style="list-style-type: none"> <li>1. The system will connect in a few seconds and redirect to the login screen</li> </ol>		
Priority:	Low		
Frequency of Use:	Super-rarely use, only if spa manager wants to disable some old products or stops providing some products		
Business Rules:	BR-9		
Other Information:	N/A		
Assumptions:	Assume that the database connection when deleting has no exception		

UC ID and Name:	UC-10 Add Staff Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Spa Manager	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks “Add Staff” button		
Description:	User can add staffs into the system to do the spa services		
Preconditions:	PRE-1: User is logged into the SSMS* as a Spa Manager		
Postconditions:	POST-1: The Staff added will be stored in SSMS* with the status “available”		
Normal Flow:	<ol style="list-style-type: none"> <li>1. System displays a form to add staff for manager</li> <li>2. Manager inputs all fields</li> <li>3. Manager clicks “Add staff” button</li> <li>4. System stores the staff that contains all the parameters managers provided before</li> <li>5. System shows “success” notifications</li> </ol>		
Alternative Flows:	<b>10.1 Manager inputs wrong format of the staffs</b>		

	1. System shows the correspond message of the incorrect fields in step 2 of normal flow 2. Return to step 1 of normal flow
Exceptions:	<b>10.1E1 Server crash or session time-out</b> 1. The system will connect in a few seconds and redirect to the login screen
Priority:	Medium
Frequency of Use:	Usually, when manager team hires a new staff for their spa salon
Business Rules:	BR-8
Other Information:	N/A
Assumptions:	Assume that the database connection when adding has no exception

UC ID and Name:	UC-11 Update Staff Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Spa Manager	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks “Edit Staff” button		
Description:	User can update staffs of the system to do the spa services		
Preconditions:	PRE-1: User is logged into the SSMS* as a Spa Manager PRE-2: User is in the detail page of the desire staff to update		
Postconditions:	POST-1: The Staffs updated will be stored in SSMS* with new “last update time” and “update person”		
Normal Flow:	1. System displays a form to update staff for manager 2. Manager inputs all fields 3. Manager clicks “Update Staff” button 4. System updates the staff that contains all the parameters managers provided before 5. System shows “success” notifications		
Alternative Flows:	<b>11.1 Manager inputs wrong format of the staff</b> 1. System shows the correspond message of the incorrect fields in step 2 of normal flow 2. Return to step 1 of normal flow		
Exceptions:	<b>11.0E1 Server crash or session time-out</b> 1. The system will connect in a few seconds and redirect to the login screen		
Priority:	Low		
Frequency of Use:	Rarely use, only if spa manager wants to update staffs to set the status, ...		
Business Rules:	BR-8		
Other Information:	N/A		
Assumptions:	Assume that the database connection when updating has no exception		

UC ID and Name:	UC-12 Delete Staff Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Spa Manager	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks “Delete Staff” button		
Description:	User can “delete” product of the system		
Preconditions:	PRE-1: User is logged into the SSMS* as a Spa Manager PRE-2: User is in the detail page of the desire staff to delete		
Postconditions:	POST-1: The Staffs deleted will be updated in SSMS* with new “last update time”, “update person” and status “disable”		
Normal Flow:	<ol style="list-style-type: none"> <li>1. System displays a form “Are you sure?” to confirm</li> <li>2. Manager clicks “Yes”</li> <li>3. System updates the status “deleted” of the desire staff</li> <li>4. System shows “success” notifications</li> <li>5. System redirects user to the showing list of staff page</li> </ol>		
Alternative Flows:	<b>12.1 Manager clicks “No” in step 2 of normal flow</b> <ol style="list-style-type: none"> <li>1. System redirects user to the detail page of the desire service</li> </ol>		
Exceptions:	<b>12.0E1 Server crash or session time-out</b> <ol style="list-style-type: none"> <li>1. The system will connect in a few seconds and redirect to the login screen</li> </ol>		
Priority:	Low		
Frequency of Use:	Super-rarely use, only if spa manager wants to fire some staffs or some staffs quit		
Business Rules:	BR-8		
Other Information:	N/A		
Assumptions:	Assume that the database connection when deleting has no exception		

UC ID and Name:	UC-13 Search Staff Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Spa Manager	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks “Search Staff” button		
Description:	User can view the list staffs of the system who do the service		
Preconditions:	PRE-1: User is logged into the SSMS* as a Spa Manager PRE-2: User is in the page that shows staff list		
Postconditions:	POST-1: The Staffs list is showed to manager		
Normal Flow:	<ol style="list-style-type: none"> <li>1. Manager inputs search field</li> <li>2. Manager clicks “Search” button</li> <li>3. System shows the list of staffs that contains the keywords manager provided before</li> </ol>		
Alternative Flows:	<b>13.1 Manager inputs nothing on the search field</b> <ol style="list-style-type: none"> <li>1. System shows the correspond message of the incorrect fields in step 2 of normal flow</li> <li>2. Return to step 1 of normal flow</li> </ol>		
Exceptions:	<b>13.0 E1 Server crash or session time-out</b> <ol style="list-style-type: none"> <li>1. The system will connect in a few seconds and redirect to the login</li> </ol>		

	screen
Priority:	High
Frequency of Use:	Usually use when Manager wants to view staffs list to manage staff
Business Rules:	BR-8
Other Information:	N/A
Assumptions:	Assume that the database connection when updating has no exception

UC ID and Name:	UC-14 Search Service Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Authorized User	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks “Search Service” button		
Description:	User can view the list services of the system through search keywords		
Preconditions:	PRE-1: User is logged into the SSMS* as an Authorized User PRE-2: User is in the page that shows services list		
Postconditions:	POST-1: The Services list is showed to user		
Normal Flow:	1. User inputs search field 2. User clicks “Search” button 3. System shows the list of Services that contains the keywords user provided before		
Alternative Flows:	<b>14.1 User inputs nothing on the search field</b> 1. System shows the correspond message of the incorrect fields in step 2 of normal flow 2. Return to step 1 of normal flow		
Exceptions:	<b>14.0 E1 Server crash or session time-out</b> 1. The system will connect in a few seconds and redirect to the login screen		
Priority:	High		
Frequency of Use:	Highly use, when Manager wants to view Services list to manage staff and when customer want to search services to book schedule		
Business Rules:	N/A		
Other Information:	N/A		
Assumptions:	Assume that the database connection when searching has no exception		

UC ID and Name:	UC-15 Update Information Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Authorized User	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks “Edit Information” button		
Description:	User can update information of his/her account		
Preconditions:	PRE-1: User is logged into the SSMS* as an Authorized User PRE-2: User is in the detail page of their account to update		
Postconditions:	POST-1: The Account Information updated will be stored in SSMS* with new “last update time” and “update person”		



Normal Flow:	<ol style="list-style-type: none"> <li>1. System displays a form to update Information for user</li> <li>2. User inputs all fields</li> <li>3. User clicks “Update Information” button</li> <li>4. System updates the information that contains all the parameters user provided before</li> <li>5. System shows “success” notifications</li> </ol>
Alternative Flows:	<b>15.1 User inputs wrong format of the information</b> <ol style="list-style-type: none"> <li>1. System shows the correspond message of the incorrect fields in step 2 of normal flow</li> <li>2. Return to step 1 of normal flow</li> </ol>
Exceptions:	<b>15.0E1 Server crash or session time-out</b> <ol style="list-style-type: none"> <li>1. The system will connect in a few seconds and redirect to the login screen</li> </ol>
Priority:	Low
Frequency of Use:	Usually use, only if spa manager wants to update account to set the status, and when users want to change their information
Business Rules:	BR-10
Other Information:	N/A
Assumptions:	Assume that the database connection when updating has no exception

UC ID and Name:	UC-16 Disable Account Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Authorized User	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks “Disable Account” button		
Description:	User can disable his/her account		
Preconditions:	PRE-1: User is logged into the SSMS* as an Authorized User PRE-2: User is in the detail page of their account to disable		
Postconditions:	POST-1: The Account Information updated will be stored in SSMS* with new “last update time” and “update person” and status “deleted”		
Normal Flow:	<ol style="list-style-type: none"> <li>1. System displays a form “Are you sure?” to confirm</li> <li>2. User clicks “Yes”</li> <li>3. System updates the status “deleted” of the desire account</li> <li>4. System shows “success” notifications</li> <li>5. System redirects user to the login page</li> </ol>		
Alternative Flows:	<b>16.1 User clicks “No” in step 2 of normal flow</b> <ol style="list-style-type: none"> <li>1. System redirects user to the detail page of the account information</li> </ol>		
Exceptions:	<b>16.0E1 Server crash or session time-out</b> <ol style="list-style-type: none"> <li>1. The system will connect in a few seconds and redirect to the login screen</li> </ol>		
Priority:	Low		
Frequency of Use:	Rarely use, only when user wants to disable his/her account or manager wants to ban a user		
Business Rules:	BR-10		
Other Information:	N/A		
Assumptions:	Assume that the database connection when updating has no exception		



UC ID and Name:	UC-17 View Article Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Authorized User	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks “Article Detail” button		
Description:	User can read a posted article		
Preconditions:	PRE-1: User is logged into the SSMS* as an Authorized User PRE-2: User is in the list articles page		
Postconditions:	POST-1: The desire articles will be showed to user in detail		
Normal Flow:	1. User click the “See detail” of the desire article 2. System shows all the detail of the article to user		
Alternative Flows:	N/A		
Exceptions:	<b>17.0E1 Server crash or session time-out</b> 1. The system will connect in a few seconds and redirect to the login screen		
Priority:	High		
Frequency of Use:	Usually use, when user wants to read articles		
Business Rules:			
Other Information:	N/A		
Assumptions:	Assume that the database connection when retrieving data process has no exception		

UC ID and Name:	UC-18 Search Product Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Authorized User	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks “Search Product” button		
Description:	User can view the list products of the system through keywords		
Preconditions:	PRE-1: User is logged into the SSMS* as an Authorized User PRE-2: User is in the page that shows products list		
Postconditions:	POST-1: The Products list is showed to user		
Normal Flow:	1. User inputs search field 2. User clicks “Search” button 3. System shows the list of Products that contains the keywords user provided before		
Alternative Flows:	<b>18.1 User inputs nothing on the search field</b> 1. System shows the correspond message of the incorrect fields in step 2 of normal flow 2. Return to step 1 of normal flow		
Exceptions:	<b>18.0 E 1 Server crash or session time-out</b> 1. The system will connect in a few seconds and redirect to the login screen		
Priority:	High		
Frequency of Use:	Highly use, when manager wants to view Products list to manage and when customer want to search Products to buy or view information		
Business Rules:	N/A		

UC ID and Name:	UC19 – Feedback services		
Created By:	Ngô Tân Đức	Date Created:	9/10/2020
Primary Actor:	Spa Customer	Secondary Actors:	Spa Salon Management System
Trigger:	Customer indicates that he wants to rate the service		
Description:	Customer feedback services that they have done		
Preconditions:	PRE-1. Customer is logged into SSMS PRE-2. Customer has completed a service		
Postconditions:	POST-1. Feedback is stored in SSMS		
Normal Flow:	<b>19.0 Feedback service</b> 1. SSMS displays a feedback panel that contains a “rating point” from 1 to 5, the service that they have done and a text area 2. Customer select the appropriate score for the service 3. Customer confirm their feedback 4. SSMS stores feedback, sends feedback information to SSMS.		
Alternative Flows:	<b>19.1 Feedback with other improvement</b> 1. Customer fill in the text area for the other improvement that they desired 2. Return to step 3 of normal flow <b>19.2 Feedbacks multiple services</b> 1. Return to step 1 of normal flow with the next service.		
Exceptions:	<b>19.0 E1 Service has been deleted</b> 1. SSMS informs that the service has been deleted		
Priority:	Low		
Frequency of Use:	Approximately 200 users, average of one usage per day. Peak usage load for this use case is between 6:00PM and 9:00P.M		
Business Rules:	BR16, BR17		
Other Information:	1. Customer shall be able to feedback the service at any time after they have done the service. 2. Customer shall be able to cancel feedback at any time prior to confirming it		
Assumptions:	Assume that 60% of customer will feedback the service		

UC ID and Name:	UC20 – Register membership		
Created By:	Ngô Tân Đức	Date Created:	9/10/2020
Primary Actor:	Spa Customer	Secondary Actors:	Spa Salon Management System
Trigger:	Customer indicates that he wants to register membership		
Description:	Customer register membership of SSMS		
Preconditions:	PRE-1. Customer is logged into SSMS		
Postconditions:	POST-1. Customer is registered for membership		
Normal Flow:	<b>20.0 Register membership</b> 1. SSMS check if Customer is eligible to register for membership. 2. SSMS confirms that Patron is eligible to register for membership. 3. SSMS asks Customer to confirm his desire to register for register membership. 4. If so, SSMS establish membership for Customer 5. SSMS inform Customer that membership is established		
Alternative Flows:	None		
Exceptions:	20.0 E1: Customer has already register membership		

	20.0 E2: Customer is not eligible for register membership
Priority:	Low
Frequency of Use:	Approximately 50 users, average of one usage per day.
Business Rules:	BR11,
Other Information:	None
Assumptions:	Assume that 30% of customer will register membership

UC ID and Name:	UC21 – Cancel membership		
Created By:	Ngô Tân Đức	Date Created:	9/10/2020
Primary Actor:	Spa Customer	Secondary Actors:	Spa Salon Management System
Trigger:	Customer indicates that he wants to cancel membership		
Description:	Customer cancel membership of SSMS		
Preconditions:	PRE-1. Customer is logged into SSMS		
Postconditions:	POST-1. Customer is unregistered for membership		
Normal Flow:	<b>21.0 Cancel membership</b> 1. SSMS check if Customer is eligible to cancel for membership. 2. SSMS confirms that Customer is eligible to cancel for membership. 3. SSMS asks Customer to confirm his desire to cancel membership. 4. If so, SSMS cancel membership for Customer 5. SSMS inform Customer that membership is canceled		
Alternative Flows:	None		
Exceptions:	21.0 E1: Customer is not eligible for cancel membership		
Priority:	Low		
Frequency of Use:	Approximately 50 users, average of one usage per day.		
Business Rules:	BR12		
Other Information:	Customer will be able to cancel membership 3 day after registered membership		

UC ID and Name:	UC22– Feedback staffs		
Created By:	Ngô Tân Đức	Date Created:	9/10/2020
Primary Actor:	Spa Customer	Secondary Actors:	Spa Salon Management System
Trigger:	Customer indicates that he wants to rate the staff		
Description:	Customer feedback staffs that they have done with		
Preconditions:	PRE-1. Customer is logged into SSMS PRE-2. Customer has completed a service		
Postconditions:	POST-1. Feedback is stored in SSMS		
Normal Flow:	<b>22.0 Feedback staff</b> 1. SSMS displays a feedback panel that contains a “rating point” from 1 to 5, the staff that they have done with and a text area 2. Customer select the appropriate score for the staff 3. Customer confirm their feedback 4. SSMS stores feedback, sends feedback information to SSMS.		
Alternative Flows:	<b>22.1 Feedback with other improvement</b> 1. Customer fill in the text area for the other improvement that they desired 2. Return to step 3 of normal flow <b>22.2 Feedbacks multiple staffs</b> 1. Return to step 1 of normal flow with the next staff.		

Exceptions:	<b>22.0E1 Staff has been deleted</b> 1. SSMS informs that the staff has been deleted
Priority:	Low
Frequency of Use:	Approximately 200 users, average of one usage per day. Peak usage load for this use case is between 6:00PM and 9:00P.M
Business Rules:	BR16, BR17
Other Information:	1. Customer shall be able to feedback the staff at any time after they have done the service. 2. Customer shall be able to cancel feedback at any time prior to confirming it
Assumptions:	Assume that 60% of customer will feedback the service

UC ID and Name:	UC23 – Cancel schedule		
Created By:	Ngô Tân Đức	Date Created:	9/10/2020
Primary Actor:	Spa Customer	Secondary Actors:	Spa Salon Management System
Trigger:	Customer indicates that he wants to cancel schedule		
Description:	Customer cancel schedule that they have booked		
Preconditions:	PRE-1. Customer is logged into SSMS PRE-2. Customer has booked schedule		
Postconditions:	POST-1. Customer schedule is canceled		
Normal Flow:	<b>23.0 Cancel schedule</b> 1. SSMS check if Customer is eligible to cancel schedule. 2. SSMS confirms that Customer is eligible to cancel schedule 3. SSMS asks Customer to confirm his desire to cancel schedule. 4. If so, SSMS cancel schedule for Customer 5. SSMS inform Customer that schedule is canceled		
Alternative Flows:	None		
Exceptions:	23.0 E1: Customer is not eligible for cancel membership		
Priority:	Medium		
Frequency of Use:	Approximately 100 users, average of one usage per day.		
Business Rules:	BR12, BR14		
Other Information:	Customer will be able to cancel membership within 24 hours after schedule is made		

UC ID and Name:	UC24 – View purchase history		
Created By:	Ngô Tân Đức	Date Created:	9/10/2020
Primary Actor:	Spa Customer	Secondary Actors:	Spa Salon Management System
Trigger:	Customer indicates that he wants to view purchase history		
Description:	Customer view all services and products that they have purchased		
Preconditions:	PRE-1. Customer is logged into SSMS		
Normal Flow:	<b>24.0 View purchase history</b> 1. Customer press the “Show purchase history” button 2. SSMS return a view with all the services, products along with the information about the order that customer has done in the past		
Alternative Flows:	None		
Exceptions:	<b>24.0E1. Server crash or time-out</b> The system will reconnect and redirect to the homepage		
Priority:	Low		
Frequency of Use:	Approximately 500 users, average of one usage per day.		
Business Rules:	None		
Other Information:	None		

UC ID and Name:	UC25 – Order products		
Created By:	Ngô Tân Đức	Date Created:	9/10/2020
Primary Actor:	Spa Customer	Secondary Actors:	Spa Salon Management System
Trigger:	Customer indicates that he wants to order products		
Description:	Customer order the products that they want from SSMS		
Preconditions:	PRE-1. Customer is logged into SSMS PRE-2. Customer has added products to cart		
Postconditions:	POST-1. Order is stored in SSMS		
Normal Flow:	<b>25.0. Order products</b> 1. SSMS displays a confirm panel that contains all the products in cart, the total cost that customer must pay and a button to confirm their order 2. Customer confirm their order 3. SSMS stores order, sends order information to SSMS. 4. System show notification for customer if the order have been submitted successfully		
Alternative Flows:	None		
Exceptions:	<b>25.0 E1 Product is order has recently out of stock</b> 1. SSMS informs the product that has out of stock		
Priority:	High		
Frequency of Use:	Approximately 200 users, average of one usage per day. Peak usage load for this use case is between 6:00PM and 9:00P.M		
Business Rules:	BR15		
Other Information:	Customer shall be able to order at anytime if they have selected the item		

UC ID and Name:	UC26 – View working schedule		
Created By:	Ngô Tân Đức	Date Created:	9/10/2020
Primary Actor:	Spa Staff	Secondary Actors:	Spa Salon Management System
Trigger:	Staff indicates that he wants to view working schedule		
Description:	Staff view his work schedules		
Preconditions:	PRE-1. Staff is logged into SSMS		
Normal Flow:	<b>26.0 View working schedule</b> 1. Customer press the “Show working schedule” button 2. SSMS return a table with staff schedule		
Alternative Flows:	None		
Exceptions:	<b>26.0E1 Server crash or time-out</b> The system will reconnect and redirect to the homepage		
Priority:	Low		
Frequency of Use:	About 100 users per day		
Business Rules:	None		
Other Information:	None		

UC ID and Name:	UC27 – View feedbacks		
Created By:	Ngô Tân Đức	Date Created:	9/10/2020
Primary Actor:	Spa Staff	Secondary Actors:	Spa Salon Management System
Trigger:	Staff indicates that he wants to view his feedback		
Description:	Staff view his feedback		
Preconditions:	PRE-1. Staff is logged into SSMS		
Normal Flow:	<b>27.0 View feedback</b> 1. Customer press the “Show feedbacks” button 2. SSMS return a table with the services and feedbacks that they have received		
Alternative Flows:	None		
Exceptions:	<b>27.0E1 Server crash or time-out</b> The system will reconnect and redirect to the homepage		
Priority:	Low		
Frequency of Use:	About 100 users per day		
Business Rules:	None		
Other Information:	None		

UC ID and Name:	UC-28 Book Schedule Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Spa Customer	Secondary Actors:	Spa Salon Management System
Trigger:	User clicks “Book Schedule” button		
Description:	User can book a service or some services of spa salon		
Preconditions:	PRE-1: User is logged into the SSMS* as a Spa Customer		
Postconditions:	POST-1: The Service(s) booked will be stored in SSMS* with the status “await customer” POST-2: The SSMS will send a SMS message to customer when the booking progress succeeded		



Normal Flow:	<b>28.0 Order a Single Service</b> <ol style="list-style-type: none"> <li>1. System displays a menu of available spa locations for customer to select</li> <li>2. Customer chooses a desire spa location</li> <li>3. System shows a list of available services of spa salons</li> <li>4. Customer chooses one or more services he/her wants</li> <li>5. System displays the list of available staffs</li> <li>6. Customer chooses the staffs to serve him/her</li> <li>7. System shows the available date and time to select</li> <li>8. Customer chooses the suitable schedule for him/her</li> <li>9. System shows a full-detail form that contains the selections of customer to confirm.</li> <li>10. Customer click “Confirm” button</li> <li>11. SSMS confirms acceptance of the order.</li> <li>12. SSMS sends the SMS to Customer to remind him/her to come to the spa salon in time that contains date, time, price and location.</li> <li>13. SSMS store schedule order that contains all the information of schedule that belong to this customer.</li> </ol>
Alternative Flows:	<b>28.1 Order more than one service</b> <ol style="list-style-type: none"> <li>1. Customer chooses more than one service in the menu showed in step 3 of normal flow</li> <li>2. Return to step 5 of normal flows</li> </ol> <b>28.2 Customer doesn’t know how to choose a staff to serve him/her</b> <ol style="list-style-type: none"> <li>1. The system will choose a staff who is available based on the date and time of the service</li> </ol>
Exceptions:	<b>28.0 E1 Insufficient staffs to serve at the time of booking</b> <ol style="list-style-type: none"> <li>1. The system will recommend another time of this date to the customer</li> </ol>
Priority:	High
Frequency of Use:	Approximately 200 users, average of one usage per date. Peak load of this use case is between 7:00 PM to 9:00 PM
Business Rules:	BR-1, BR-2, BR-3, BR-4, BR-5, BR-14
Other Information:	<ol style="list-style-type: none"> <li>1. Customer shall be able to cancel the schedule at any time after confirm the detail form in 3 hours</li> <li>2. Customer shall be able to view all the former schedules and can choose one of them as a “quick schedule booking”</li> </ol>
Assumptions:	Assume that 99% schedule will be successfully booked without cancel

UC ID and Name:	UC29 – View salary report		
Created By:	Ngô Tân Đức	Date Created:	9/10/2020
Primary Actor:	Spa Staff	Secondary Actors:	Spa Salon Management System
Trigger:	Staff indicates that he wants to view salary report		
Description:	Staff view his salary report		
Preconditions:	PRE-1. Staff is logged into SSMS		
Normal Flow:	<b>29.0 View working schedule</b> 1. Customer press the “Show salary report” button 2. SSMS return a view contain the detail salary and the salary that they will receive		
Alternative Flows:	None		
Exceptions:	<b>29.0 E1 Server crash or time-out</b> The system will reconnect and redirect to the homepage		
Priority:	Low		
Frequency of Use:	About 100 users per day		
Business Rules:	None		
Other Information:	None		

UC ID and Name:	UC-30 – Feedback services		
Created By:	Ngô Tân Đức	Date Created:	9/10/2020
Primary Actor:	Spa Customer	Secondary Actors:	Spa Salon Management System
Trigger:	Customer indicates that he wants to rate the service		
Description:	Customer feedback services that they have done		
Preconditions:	PRE-1. Customer is logged into SSMS PRE-2. Customer has completed a service		
Postconditions:	POST-1. Feedback is stored in SSMS		
Normal Flow:	<b>30.0 Feedback service</b> 1. SSMS displays a feedback panel that contains a “rating point” from 1 to 5, the service that they have done and a text area 2. Customer select the appropriate score for the service 3. Customer confirm their feedback 4. SSMS stores feedback, sends feedback information to SSMS.		
Alternative Flows:	<b>30.1 Feedback with other improvement</b> 1. Customer fill in the text area for the other improvement that they desired 2. Return to step 3 of normal flow <b>30.2 Feedbacks multiple services</b> 1. Return to step 1 of normal flow with the next service.		
Exceptions:	<b>30.0 E1 Service has been deleted</b> 1. SSMS informs that the service has been deleted		
Priority:	Low		
Frequency of Use:	Approximately 200 users, average of one usage per day. Peak usage load for this use case is between 6:00PM and 9:00P.M		
Business Rules:	BR-16, BR-17		

Other Information:	1. Customer shall be able to feedback the service at any time after they have done the service. 2. Customer shall be able to cancel feedback at any time prior to confirming it
Assumptions:	Assume that 60% of customer will feedback the service

UC ID and Name:	UC31 – Get notification		
Created By:	Ngô Tân Đức	Date Created:	9/10/2020
Primary Actor:	Authorized User	Secondary Actors:	Spa Salon Management System
Trigger:	None		
Description:	Customer can get notifications from system		
Preconditions:	PRE-1. Customer is logged into SSMS		
Postconditions:	None		
Normal Flow:	<b>31.0 Get notification</b> 1. User click on the notification icon 2. SSMS return a drop-down list contains a list of notifications		
Alternative Flows:	None		
Exceptions:	<b>31.0 E1 Service has been deleted</b> 1. SSMS informs that the service has been deleted		
Priority:	High		
Frequency of Use:	Approximately 200 users		
Business Rules:	None		
Other Information:	1. Customer can click on the notification for more information		
Assumptions:	Assume that the database connection when updating has no exception		

UC ID and Name:	UC-32 Notification Use case		
Created By:	KhangHV	Date Created:	9-10-2020
Primary Actor:	Spa Salon Management System	Secondary Actors:	Authorized Users
Trigger:	After Customers booked a service		
Description:	Notifications are sent to every Authorized Users		
Preconditions:	PRE-1: User is logged into the SSMS* as an Authorized User		
Postconditions:	POST-1: The Notifications with the account of users is saved into the system		
Normal Flow:	1. Customer finished booking service schedule 2. System sends “success message” to customer 3. System sends “new order message” to Spa Manager and Staffs who involve with this service schedule		
Alternative Flows:	N/A		
Exceptions:	<b>32.0 E 1 Server crash or session time-out</b> 1. The system will connect in a few seconds and redirect to the login screen		
Priority:	High		
Frequency of Use:	Super highly use, depends on the booking of customers		

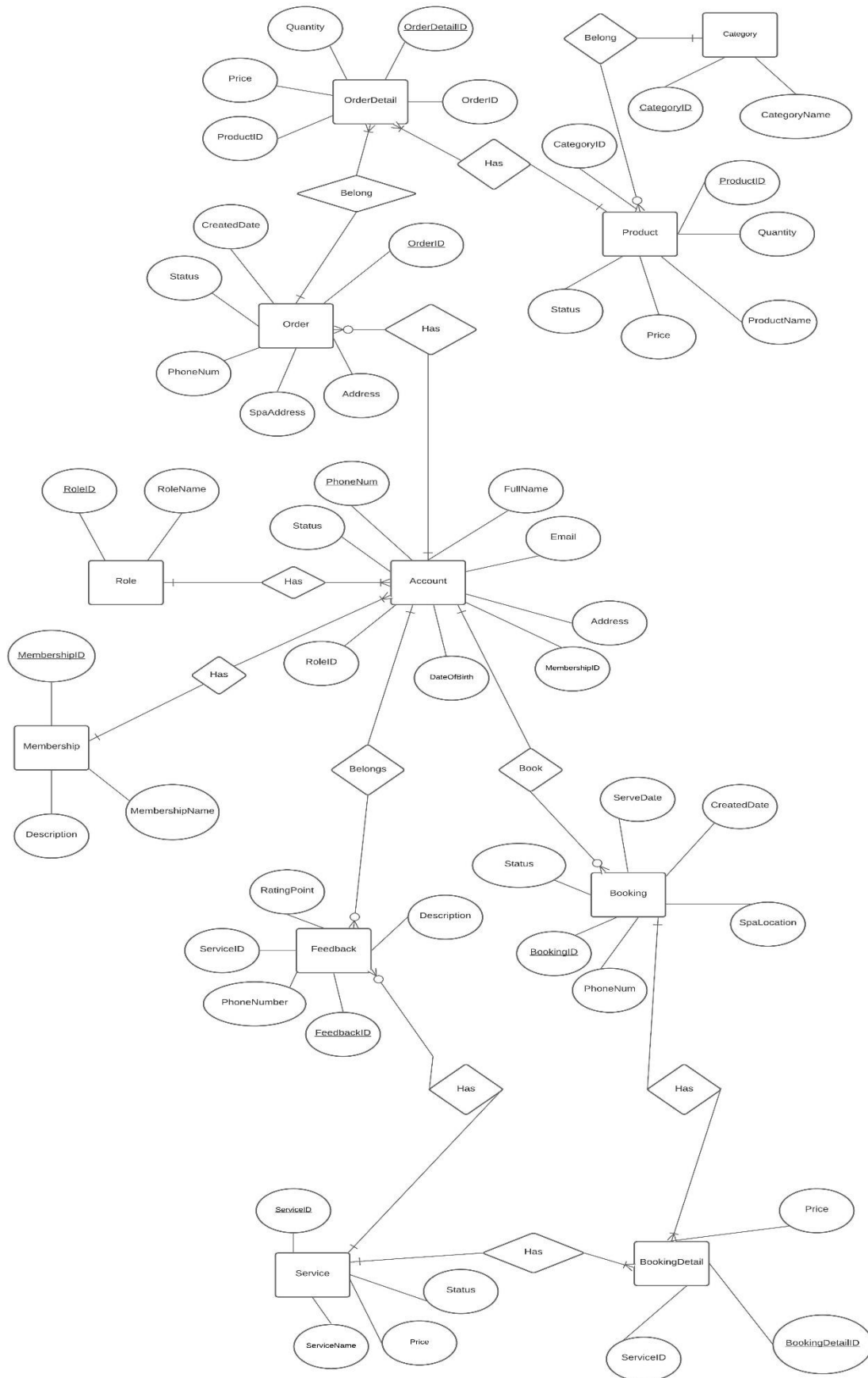
Business Rules:	BR-5
Other Information:	N/A
Assumptions:	Assume that the database connection when updating has no exception

ID	Rule Definition	Type of Rule	Static or Dynamic	Source
BR-1	Customer shall be from 18 age up to be able to book schedule.	Fact	Static	Spa Salon Manager
BR-2	All the services booked must be served in the same spa salon location chosen before.	Constraint	Dynamic	Spa Salon Manager
BR-3	Total price is summed up by all the services booked and applicable sale tax and promotion (if any)	Computation	Static	Spa Salon Policy; state tax code
BR-4	Only spa customers can use the booking schedule function	Constraint	Static	Spa Salon Manager
BR-5	When the booking process is success, if the SMS wasn't automatically sent to customer in 30s, the system should try to send the SMS again.	Constraint	Dynamic	Spa Salon Manager
BR-6	Only Spa Salon Manager can create, modify or delete services.	Constraint	Static	Spa Salon Manager
BR-7	Only Spa Salon Manager can create, modify or delete articles.	Constraint	Static	Spa Salon Manager
BR-8	Only Spa Salon Manager can create, modify, search or delete staffs.	Constraint	Static	Spa Salon Manager
BR-9	Only Spa Salon Manager can create, modify or delete products.	Constraint	Static	Spa Salon Manager
BR-10	User has to input password again when update or disable his/her account.	Constraint	Static	Spa Salon Manager
BR-11	User has to directly come to spa salon to register membership.	Constraint	Static	Spa Salon Policy
BR-12	User has to be a membership before to cancel membership.	Constraint	Static	Spa Salon Policy
BR-13	User has to booked schedule before to cancel booking process.	Constraint	Static	Spa Salon Manager
BR-14	User has to arrive at the spa salon no later than 5 minutes according to the booked schedule. Else the schedule will be canceled automatically.	Fact	Dynamic	Spa Salon Policy
BR-15	User can only cancel booking products within 1 day after checkout cart	Constraint	Static	Spa Salon Policy

BR-16	After finished services in the spa salon, feedback screen will be displayed in the customer app on phone for his/her to be able to feedback	Action Enabler	Static	Spa Salon Policy
BR-17	User can fill and submit the feedback form any time after finished services	Constraint	Static	Spa Salon Policy

## 4. Data Requirements

### 4.1 Logical Data Model



## 4.2 Data Dictionary

Data Element	Description	Composition or Data Type	Length	Values
ServiceID	ID of service of a spa salon which can be booked by customer	String	5	A string of numbers
Service Name	Name of a service of a spa salon	String	50	
Price (Service)	The price of a service	Integer	10	A positive integer in VND
Status	Status of a service	String	20	Available / Unavailable
BookingDetailID	ID of a booking detail created by a customer who books a service/services of the spa salon	String	5	A string of numbers
Price (Booking Detail)	The price of a service that is in a booking detail (for storing data purpose)	Integer	10	A positive integer in VND
phoneNum	The phone number of a customer, customer can use this phone number to access to the SSMS	String	11	A string of numbers that can be 10 to 11 characters
fullName	Full Name of a customer	Alphabetic	50	
Email	Email of a customer. Customer can use this email to receive promotion notifications	String	100	A string with an extension of an email (@gmail.com, @fpt.edu.vn, ...)
Address (Account)	Address of a customer, can be the address to ship product	String	200	
dateOfBirth	Date of birth of a customer	Date, MM/DD/YYYY	10	
BookingID	ID of a booking created by a customer who books a service/services of the spa salon	String	5	A string of numbers
SpaLocation	Address of spa salon, can be the address to do the service	String	200	
ServeDate	The datetime that customer arrives to the salon to get services done	Datetime, MM/DD/YYYY hh:mm	16	
CreatedDate (Service)	Date generated when customer creates the booking	Date, MM/DD/YYYY	10	
Status (Booking)	The status of the booking created	String	20	Waiting/ Cancelled/ Pending/ Done
MembershipID	ID of a membership that a	String	5	A string of

	customer has			numbers
MembershipName	Name of a membership that a customer has	String	20	Bronze/ Silver/ Gold/ Platinum
Description (Membership)	Description of a membership of a customer	String	200	
RoleID	ID of a role of a customer	String	5	A string of numbers
RoleName	Name of a role of a customer	String	20	Customer/ Admin/ Staff
FeedbackID	ID of a feedback from a customer to a service	String	5	A string of numbers
Rating Point	Point from customer rates for a service	Integer	1	A number from 1 to 5
Description (Feedback)	The information from customer to rate the services	String	200	
OrderID	The ID of an order that from customer to order products	String	5	A string of numbers
CreatedDate (Order)	Date generated when customer creates the order	Date, MM/DD/YYYY	10	
Address (Order)	Address of a customer, can be the address to ship product	String	200	
SpaAddress	Address of a salon that supplied products	String	200	
Status (Order)	Status of an order	String	20	Waiting /Pending /Cancelled/ Done
Price (Order Detail)	The price of a product that is in an order detail (for storing data purpose)	Integer	10	A positive integer in VND
Quantity (Order Detail)	The quantity of a product that is in the order detail	Integer	3	A positive integer
ProductID	The ID of a product	String	5	A numeric string
ProductName	The name of a product	String	50	
Quantity (Product)	The quantity of a product in storage	Integer	7	A positive integer
Price (Product)	The price of a product	Integer	10	A positive integer in VND
Status (Product)	The status of a product	String	20	Available / Unavailable
CategoryID	The ID of a product category	String	5	A numeric string
CategoryName	The name of a product category	String	50	



### **4.3 Reports**

N/A

### **4.4 Data Acquisition, Integrity, Retention, and Disposal**

DI-1: The SSMS shall retain Individual Customer orders for 12 months following the order's delivery date and booking's date.

## **5 External Interface Requirements**

### **5.1 User Interfaces**

UI-1: The        system shall provide a help link from each displayed webpage to explain how to use that page.

### **5.2. Software Interfaces**

No third-party interfaces are used

### **5.3. Hardware Interfaces**

No hardware interfaces have been identified.

### **5.4. Communications Interfaces**

CI-1: The        SSMS shall send an email or text message (based on user account settings) to the Spa Customer to confirm acceptance of a schedule, order, and delivery instructions.

CI-2: The        SSMS shall send an email or text message (based on user account settings) to the Spa Customer to report any problems with the schedule or order.

## **6. Quality Attributes**

### **6.1. Usability**

USE-1: 90% of new users shall be able to successfully order services or products without errors on their first try.

## **6.2. Performance**

PER-1: The system shall accommodate a total of 200 users and a maximum of 70 concurrent users during the peak usage time window of 7:00 P.M. to 9:00 P.M. local time, with an estimated average session duration of 8 minutes.

PER-2: 95% of webpages generated by the SSMS shall download completely within 3 seconds from the time the user requests the page over a 20Mbps or faster Internet connection.

PER-3: The system shall display confirmation messages to users within an average of 2 seconds and a maximum of 5 seconds after the user sends information to the system.

## **6.3. Security**

SEC-1: The system shall allow Customers to view only orders and schedules that they placed.

## **6.4. Safety**

N/A

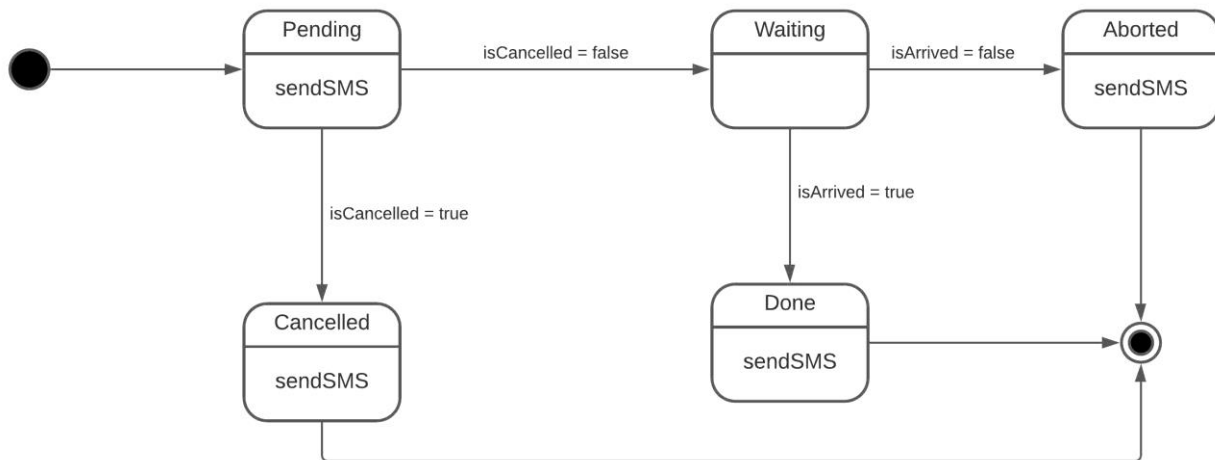
# **7. Internationalization and Localization Requirements**

N/A

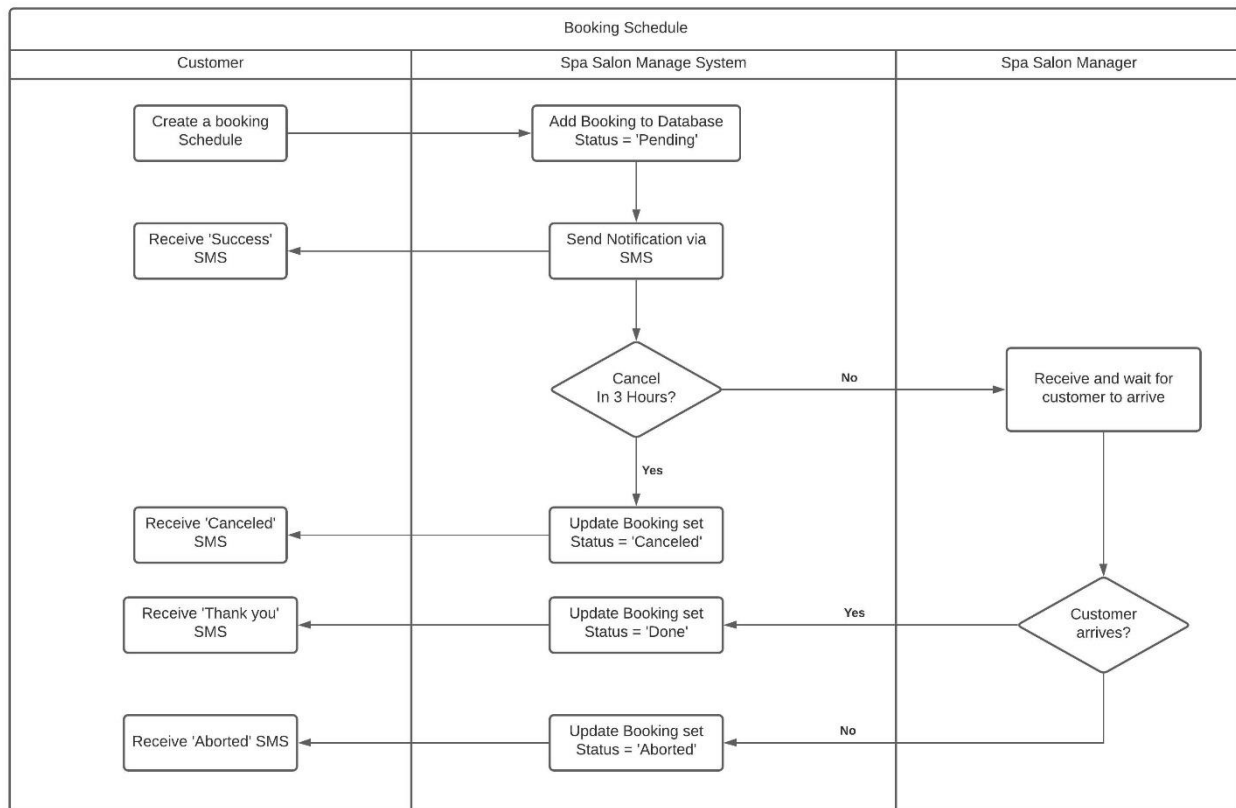
## 8. Other Requirements

### Appendix A: Analysis Models

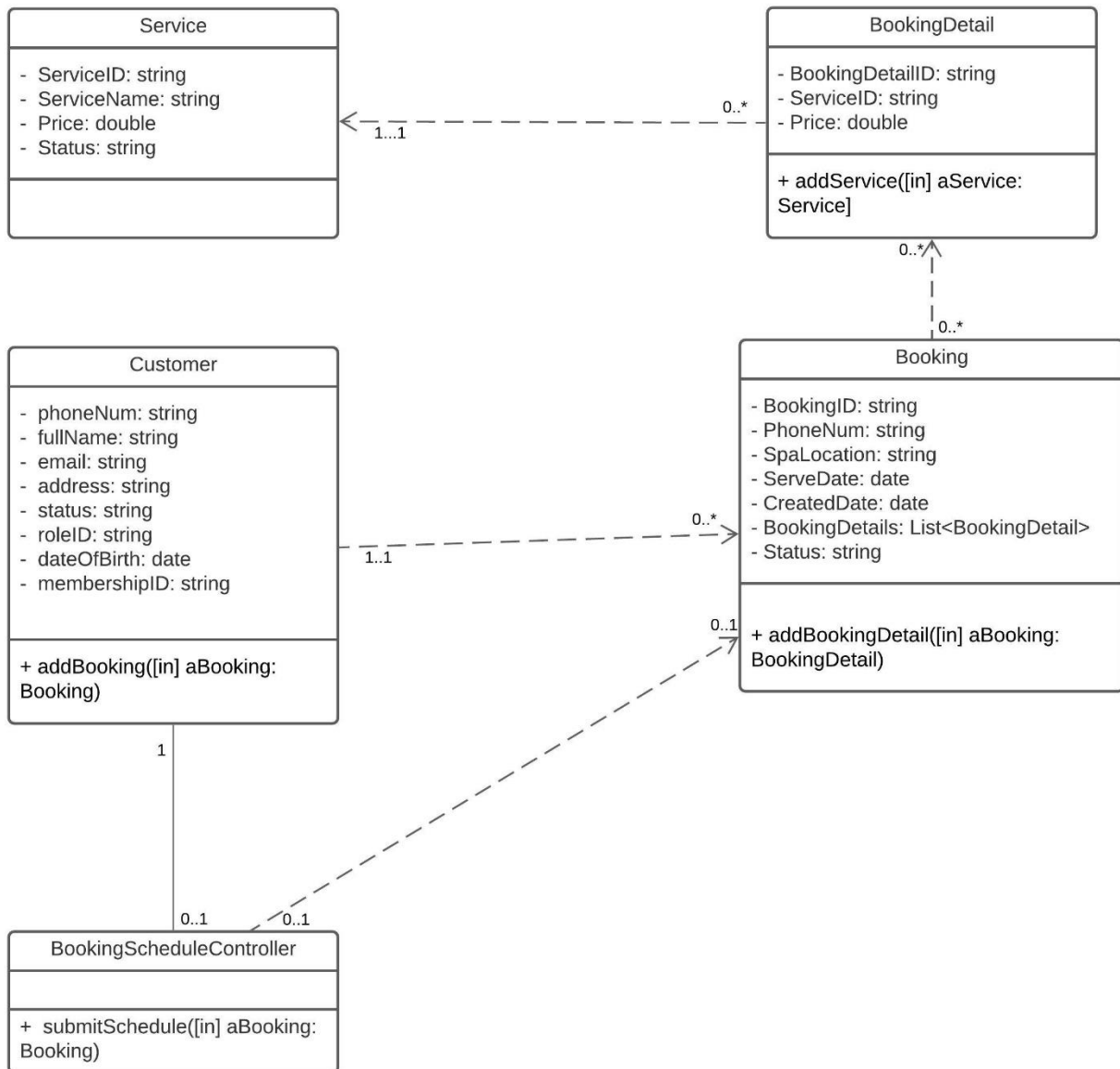
State-chart of a booking created by customer



Activity Diagram of booking process



## Class Diagram for Booking Service



## Sequence Diagram for Booking Service

